

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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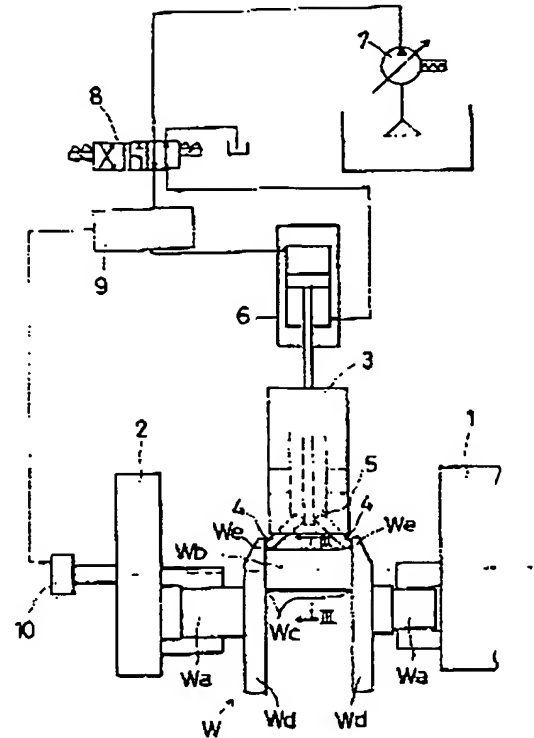
APPLICATION DATE : 20-07-83  
APPLICATION NUMBER : 58130796

APPLICANT : HONDA MOTOR CO LTD;

INVENTOR : MATSUYAMA HARUO;

INT.CL. : C21D 7/04 B21H 1/00

TITLE : WORKING METHOD OF CRANK  
SHAFT BY ROLLING



**ABSTRACT :** **PURPOSE:** To eliminate the need for increasing the thickness in the shoulder part of a pin and to reduce the weight of a crank shaft by making the pressurizing force on fillets by rollers stronger on the crank journal side and weaker on the top end side of the crank arm.

**CONSTITUTION:** A pressure control valve 9 is interposed in the fluid pressure circuit of a cylinder 6 connected via a forward-backward change-over valve 8 to a fluid pressure source 7 in the stage of working by rolling. The valve 9 is controlled by the signal from a phase detector 10 provided to a driven work holder 2. The fluid pressure inputted to a cylinder 6, i.e., the pressurizing force on each fillet (wc) by each roller 4 is adjusted and changed so as to be made stronger in the circumferential surface part of each fillet (wc) on the crank journal (wa) side and to be made weaker in the circumferential surface part on the top end side of the crank arm (wd). The part of the fillet (wc) of the crank shaft (w) on the crank journal (wa) side is thus substantially strengthened.

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